REMARKS

Applicants have received the Office Action dated April 10, 2008, in which the Examiner: 1) rejected claims 1-4, 8, 11, and 13 as anticipated by Shen (U.S. Patent No. 5,687,336 "Shen"); 2) rejected claim 5 as obvious due to Shen in view of Ebrahim (U.S. Patent No. 5,893,121 "Ebrahim"); 3) rejected claims 6 and 17-20 as obvious due to Shen in view of Steely (U.S. Patent No. 6,801,986 "Steely"); and 4) rejected claims 12 and 14 as obvious due to Shen in view of O'Connor (U.S. Patent No. 6,026,485 "O'Connor"). With this Amendment, Applicants amend claim 1. Based on the amendment and arguments herein, Applicants respectfully submit that all pending claims are in condition for allowance.

<u>Claims 1–6, 8, and 11–14</u>

Independent claim 1 recites, in part, "determining stack trend information using . . . future stack operating instructions." Independent claim 11 recites a similar limitation. However, the cited references fail to teach or suggest the quoted limitation. Examiner cites Shen at col.4 ℓ.11–15 and 36–60; Fig.2; col.3 ℓ.65–col.4 ℓ.7; col.6 ℓ.58–col.7 ℓ.15; and Fig.4 as allegedly teaching the quoted limitation. At the cited location, Shen teaches determining an increment value to generate a new stack pointer. However, determining an increment value to generate a new stack pointer does not teach or suggest using future stack operating instructions. Indeed, at col.4 ℓ.44–46, Shen teaches the opposite: "If older stack instructions exist in the pipeline, an additional amount of increment value 94 is added by logic 20 to account for the older stack instructions in the pipeline." Furthermore, no other art of record teaches or suggests determining stack trend information using future stack operating instructions as required by the claims. For at least this reason, independent claims 1 and 11, along with dependent claims 2–6, 8, and 12–14, are allowable over Shen, Shen in view of Ebrahim, Shen in view of Steely, and Shen in view of O'Connor.

Additionally, independent claim 1, as amended, recites, in part, "reducing data traffic between various levels of a memory based on the trend information." However, the cited references fail to teach or suggest the quoted limitation. Examiner cites Shen at

col.8 ℓ.34–47 as allegedly teaching the quoted limitation. At the cited location, Shen teaches: "Pairing the pushes and pops is then disabled since mis-aligned pushes and pops may cross over to another cache line, requiring a second cache access cycle which reduces performance." However, disabling pushes and pops does not teach or suggest reducing data traffic between various levels of a memory based on the trend information. It is unclear whether Examiner is arguing inherency under MPEP § 2112. If so, Examiner has not established a prima facie case of inherency by making clear that 1) the missing descriptive matter is necessarily present in the thing described in the reference and 2) that it would be so recognized by persons of ordinary skill as described in MPEP § 2112(IV). Furthermore, no other art of record teaches or suggests reducing data traffic between various levels of a memory based on the trend information as required by the claim. For at least this additional reason, independent claim 1, along with dependent claims 2–6 and 8, are allowable over Shen, Shen in view of Ebrahim, and Shen in view of Steely.

Claims 17–20

Independent claim 17 recites, in part, "determining whether the write request refers to a predetermined word within a dirty cache line." However, the cited references fail to teach or suggest the quoted limitation. Examiner notes that Shen does not teach the quoted limitation. Examiner cites Steely at col.2 ℓ.39–43 as allegedly teaching the quoted limitation. At the cited location, Steely teaches "The cache with the current version of the data of the memory block is referred to as the 'dirty' cache line." However, merely referring to a dirty cache line does not teach or suggest determining whether a write request refers to a predetermined word within a dirty cache line. It is unclear whether Examiner is arguing inherency under MPEP § 2112. If so, Examiner has not established a prima facie case of inherency by making clear that 1) the missing descriptive matter is necessarily present in the thing described in the reference and 2) that it would be so recognized by persons of ordinary skill as described in MPEP § 2112(IV). Furthermore, no other art of record teaches or suggests determining whether a write request refers to a predetermined word within a dirty cache line as required by the claims. For at least this

reason, independent claim 7, along with dependent claims 18–20, are allowable over Shen in view of Steely.

<u>Conclusion</u>

For the reasons stated above, Applicants respectfully submit that the application is in condition for allowance. In the course of the foregoing discussions, Applicants may have at times referred to claim limitations in shorthand fashion, or may have focused on a particular claim element. This discussion should not be interpreted to mean that the other limitations can be ignored or dismissed, or that limitations from the specification can be imported into the claims. The claims must be viewed as a whole, and each limitation of the claims must be considered when determining the patentability of the claims. Moreover, it should be understood that there may be other distinctions between the claims and the prior art which have yet to be raised, but which may be raised in the future.

Applicants respectfully request reconsideration and that a timely Notice of Allowance be issued in this case. It is believed that no extensions of time or fees are required, beyond those that may otherwise be provided for in attachments accompanying this document. However, in the event that additional extensions of time are necessary to allow consideration of this document, such extensions are hereby petitioned under 37 C.F.R. § 1.136(a), and any fees required (including fees for net addition of claims) are hereby authorized to be charged to Texas Instruments Incorporated's Deposit Account No. 20-0668 for such fees.

Respectfully submitted,

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